

REMARKS/ARGUMENTS

Status

In the Office Action mailed March 17, 2009, Claims 1-11 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention; Claims 1-5 were rejected under 35 U.S.C. § 103(a) as being patentable over German Patent No. DE 201 56 676, issued to Eisenmann Foerdertech (“*Eisenmann*”), in view of U.S. Patent No. 5,098,049, issued to Vlaardingen (“*van Vlaardingen*”); the drawings were objected to under 37 C.F.R. § 1.83(a) as failing to show every feature of the invention specified in the claims; and, Claims 6-10 were indicated as being allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112, second paragraph, and to include all of the limitations of the base claim and any intervening claims.

Applicant thanks the Examiner for the indication of allowable subject matter.

By this reply, Claims 1 and 7-11 have been amended; Claims 2-6 have been canceled; and, no new claims have been added. As such, Claims 1 and 7-11 are pending in this application.

Drawings Objections

Applicant has canceled Claims 4, 5, and 6. As such, the objections to the drawings are now moot. Applicant therefore requests that the objections to the drawings be removed and respectfully submits that the application is now in condition for allowance.

Claim Rejections

35 U.S.C. § 112

Applicant has amended the claims to more particularly point out and distinctly claim the subject matter that Applicant regards as the invention. In particular, the term “article” has been replaced by “vehicle body” throughout the claims; element c) of amended Claim 1 has been reworded to clarify that the “medium capable of temporarily storing the energy” is the elastic deformable medium; and, Claim 7 has been amended to remove the lack of antecedent basis.

Additionally, amended Claim 1 is based on a combination of Claims 1-3 and element e) according to which the spring characteristics of the bellows device is individually adaptable to the weight of the respective vehicle body being carried by the feed carriage by adjusting the internal pressure of the bellows device—which is supported by Paras [0017] and [0041] of the

Patent Application Publication US 2005/0269205 A1 of December 8, 2005, which corresponds to the application as originally filed.

As such, Applicant respectfully requests that the rejections to the claims be removed and all pending claims be allowed to issue.

35 U.S.C. § 103

Applicant's invention is directed to a system for cataphoretically dip-coating vehicle bodies, wherein the kinematic of the vehicle bodies to be treated is to be optimized in the case of vehicle bodies of different weights:

- to provide that the vehicle bodies are effectively surrounded by the treatment liquid—which leads to a high quality of coating results;
- to obtain a short design of the treatment containers—which leads to lower investment costs; and,
- to minimize the energy demand for swiveling a swivel arm supporting a vehicle body—which leads to a reduction of overheads.

Applicant's use of a bellows device whose internal pressure is adjustable, facilitates:

- storing of energy in the case of lowering the vehicle bodies in connection with the retrievability of the temporarily stored energy in the case of lifting the vehicle bodies; and,
- adapting the spring characteristic and thus the capability of storing energy to the weight of the vehicle bodies.

Accordingly, Applicant's invention provides for the ability to adapt the rigidity and the capability of storing energy of the bellows device to the effective weight of a vehicle body by simply changing the internal pressure of the bellows device. As such, Applicant submits that the claimed invention provides a reasonably easy process for achieving the advantages mentioned above as compared to known systems and methods.

In contrast to Applicant's invention, conventional systems for cataphoretically dip-coating vehicle bodies use balance weights to optimize the force balance. Although utilization of a balance weight is advantageous with respect to the torque control, due to the slow movement of a vehicle body, a very high performance of a swivel drive is required for dipping and lifting the vehicle bodies. Furthermore, based on known methods using balance weights, it is difficult—if

not impossible—to adapt the system to different vehicle bodies having different weights.

Referring now to the relied upon prior art, *Eisenmann* discloses a system for coating vehicle bodies, but fails to disclose that temporarily storing the energy is accomplished by virtue of elastic deformation of an elastically deformable medium, which is required in element c) of amended Claim 1. *Eisenmann* further fails to disclose elements d) and e) of amended Claim 1, i.e., that the energy storage mechanism comprises at least one gas-filled bellows device, and that the spring characteristic of the bellows device is individually adaptable to the weight of the respective vehicle body being carried by the feed carriage by adjusting the internal pressure of the bellows device.

As such, *Eisenmann* fails to disclose each and every element of Applicant's amended independent Claim 1.

Moving on to *van Vlaardingen*, it discloses a balanced supporting arm comprising a supporting arm 1 kept in equilibrium. In particular, supporting arm 1 facilitates the smooth movement of a camera without any considerable effort. Supporting arm 1 is mounted at a fulcrum point 2 on a supporting assembly 3 and is capable of receiving a load on a first end 5. For compensating the load, the supporting arm 1 is provided with a balance weight 11 at the other end 6, wherein changes in the magnitude of the load can be offset by changing the magnitude of the balance weight 11. The balance supporting arm of *van Vlaardingen* also comprises a cylinder 31 including a piston 32. The cylinder 31 is hingedly coupled to the supporting arm 1 and the piston 32 is hingedly coupled to the supporting assembly 3. The cylinder 31 works as a damping device, and for that purpose, the compartment 33 of the cylinder 31 communicates with a reservoir for a fluid 34 to obtain smooth motions of the supporting arm 1.

van Vlaardingen further utilizes a bellows device 40 provided at the bottom of the second end 6 of the supporting arm below the balance weight 11. The bellows device 40 is gas-filled and serves to absorb the kinetic energy generated by the tilting motion when the supporting arm 1 strikes the floor; and a corresponding bellows device may be provided at the bottom of the load end 5 of the supporting arm 1. The bellows device 40 however is not an energy storage mechanism, but merely a buffer to prevent the supporting arm 1 from being damaged by striking the floor. That is, *van Vlaardingen*'s bellows device 40 does not facilitate the counter balancing

device of the supporting arm 1 in form of the balance weight 11. Thus, if the load end 5 of the supporting arm 1 has to be moved from a low position to a higher position, there is no temporarily stored energy that is retrievable to assist the upward movement of the load-end 5 of the supporting arm 1. In other words, there is no interrelationship between the bellows device 40 and the counter balancing device in form of the balance weight 11.

Similar to *Eisenmann*, *van Vlaardingen* likewise fails to at least disclose elements c), d), and e) of amended independent Claim 1. The combination of *Eisenmann* and *van Vlaardingen* therefore consequently fails to disclose each and every element of Applicant's amended independent Claim 1. Moreover, the combination of *Eisenmann* and *van Vlaardingen* fails to suggest its modification for attaining Applicant's invention as currently claimed. Applicant therefore submits that its amended independent Claim 1—as well as Claims 7-11, which are ultimately dependent thereon—is patentably distinct over the relied upon prior art. As such, Applicant respectfully requests that the rejections of the claims be removed and all pending claims be allowed to issue.

CONCLUSION

In view of the above claim amendments and remarks, Applicant respectfully requests that all rejections be removed and all pending claims be passed to issue. If any additional fees are required with this reply, Applicant authorizes the Commissioner to deduct such fees from Applicant's Deposit Account No. 50-0545.

Respectfully submitted,

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